PRAYASH SHRESTHA

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FULL STACK SOFTWARE ENGINEER

Skilled software developer with nearly 3 years of experience in enterprise application development, particularly in healthcare. Proficient in planning, coding, and testing within the SDLC. Expert in problem identification, code improvement, and application performance enhancement. Strong back-end development and system design skills, with expertise in Java, JavaScript, React, Spring, Microservices, Cloud, and RESTful services. Capable of creating high-performance production systems to meet diverse client needs, committed to optimizing technology for software development growth.

Web Development • Microservices • Functional Programming • Cloud Computing
Containerization and Orchestration • Automation and DevOps • Database Management
Web Scraping and Automation • Agile Methodologies • Project Management

Languages: TypeScript, JavaScript, Scala, Java
Web: React, Tailwind, Node.js, HTML5, CSS3
Web Services: RESTful
Web/App Servers: Apache, Nginx
Frameworks: Express, Spring
Databases: PostgreSQL, GraphQL, MongoDB
Design Patterns: MVC, Singleton, Strategy, Command, Adapter, Abstract Factory, Decorator, Builder
SDLC: Agile/Scrum, Waterfall
Tools: Git, GitHub, Docker, Kubernetes, Elastic Search, Jenkins(CI/CD), Maven, Webpack, Jira, Postman, Kafka, ZIO, Tapir, Doobie, Mongo4cats, Circe, Selenium, Puppeteer, IntelliJ IDEA, Visual Studio Code.
Platforms: AWS, MacOs, Linux
Application/Software: Keycloak, FHIR

PROFESSIONAL EXPERIENCE

CAREER NOTE: *Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).*

GREPSR PVT. LTD., Kathmandu, Nepal • 05/2023 – 09/2023
Data Acquisition Company.

Delivery Engineer
Wrote and optimized web crawlers for data scrapping.
- Enhanced in-house project functionality using PHP SDK, resulting in an increase in application efficiency and a reduction in response time.
- Automated web interactions using JavaScript and TypeScript with Puppeteer, leading to an improvement in data scraping efficiency and a reduction in operational time.
- Optimized dynamic application performance by employing JavaScript and TypeScript, achieving a 25% boost in interactivity and an enhancement in execution speed.
- Innovated reCAPTCHA bypass strategies, ensuring a 90% success rate in uninterrupted data collection during web scraping operations.
- Conducted data analysis using Python, processing datasets and extracting actionable insights that increased data-driven decision-making by 35%.
- Implemented CI/CD pipelines using Kubernetes, accelerating the testing, building, and deployment cycle, which contributed to a 20% faster time-to-market for product releases.

Technologies Used: *JavaScript, PHP, TypeScript, Python, Kubernetes, Selenium, Puppeteer*

WISEYAK INC., Kathmandu, Nepal • 05/2022 – 05/2023
Software Company.

Software Engineer
Full Stack Software Engineer

- Architected and executed a microservices infrastructure using Scala and Java, enhancing system scalability and fault tolerance, while applying functional programming techniques to improve code maintainability and concurrency handling.
- Engineered and launched Docker-based containerized applications, achieving 95% environment consistency across development, staging, and production, reducing deployment issues by 25%.
- Managed microservices orchestration with Kubernetes, facilitating an increase in deployment efficiency and enabling auto-scaling across 15+ nodes.
- Created batch and real-time data processing systems using Apache Spark, which improved data processing speed.
- Designed and implemented user interfaces with TypeScript and React, resulting in improvement in response time and an increase in user satisfaction across various devices and platforms.

Technologies Used: *Scala, Java, Docker, Kubernetes, TypeScript, React, MongoDB, PostgreSQL, Amazon Web Services (AWS), AWS Lambda, Elastic Kubernetes Service (EKS), Jenkins*

PRISMASOFTS, Kathmandu, Nepal • 03/2021 – 04/2022
IT Services and Consulting.

Junior Software Engineer (06/2021-01/2022)
Full Stack Web Developer
- Boosted performance 40% by reducing CSS initial load time using CSS module in ReactJS and reducing initial CSS bundle from 38KB to 23KB.
- Implemented lazy loading in React.js to enhance application performance by dynamically loading components and resources as needed, optimizing user experience through efficient resource utilization.
- Integrated role-based security measures using React, ensuring access control and data protection based on user roles, thus enhancing application security and user experience.
- Developed reusable components strategically to optimize application performance using Material UI and Ant Design, reducing redundancy and enhancing overall efficiency.
- Optimized backend logic and playing a pivotal role in maintaining and enhancing the backend codebase to ensure robust performance, scalability, and seamless integration with front-end and third-party APIs.

Technologies Used: *JavaScript, TypeScript, Material UI, Redux, MongoDB, PostgreSQL, Git, Jest.*

Software Engineer Intern (03/2021 – 05/2021)
Full Stack Web Development
- Developed and maintained web applications using React.js, Node.js, and MongoDB, while sustaining clean, scalable, and well-documented code.
- Utilized RESTful APIs to integrate back-end services with front-end components.
- Implemented state management using Redux for multiple projects.
- Collaborated with cross-functional teams to define, design, and ship new features.
- Participated in code reviews, testing, and debugging to improve application performance.

Technologies Used: *JavaScript, Material UI, Redux, MongoDB, Git*

ACADEMIC PROJECT

Maharishi International University (2024) Real State: I contributed to the creation of a real estate portal, akin to Zillow, which hosts a variety of property listings and user categories. My focus was on the development of the REST API. This endeavor was structured around the Spring Boot framework, employing a microservice design. For message handling, Kafka was utilized, while Kubernetes facilitated our container orchestration. Docker was integrated to enhance system compatibility, and we adopted GitHub Actions for our CI/CD pipeline. Additionally, we integrated Elastic Search and utilized Redis for caching to expedite response times. Utilized Spring Boot, Kafka, Kubernetes, PostgreSQL, Docker, CICD, Elastic Search, Redis

EDUCATION

Master of Science in Computer Science
(In progress via distance education; expected completion 06/2026)
Maharishi International University, Fairfield, Iowa

<u>Key Courses</u>: *Web Programming, Enterprise Architecture, Web Application Architecture, Advance Software Development*

Bachelor of Engineering in Information Technology in Engineering
Everest Engineering College, Kathmandu, Nepal (2021)